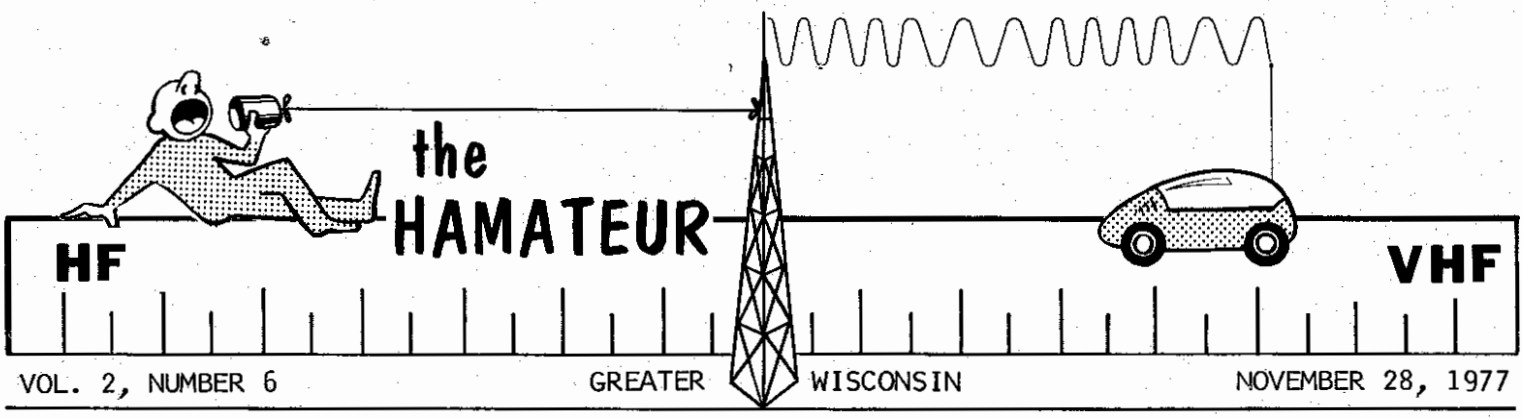

VOL. 2, NUMBER 6 GREATER WISCONSIN NOVEMBER 28, 1977

the HAMATEUR

This newsletter is published monthly for the amateurs represented by the Radio Clubs listed. Reproduction, with credit given , is granted for anything appearing within the HAMATEUR. Deadline date to submit material for the month is the 5th. Publication date is the 28th.

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93/33....WB9BSO...Bruce Herrick....964-6536
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6-MIC....WB9OPD...Bob Pettigrew....447-1307
MRAC.....W9MDG....Al Belanger.....461-8272
Ozaukee.....WA9BMA...Ed Bach.....284-2664/Metro 242-3420
Racine.....W9HI.....Stu Stewart.....539-2680
22/82.....WB9PKY...Jim Wiskow.....Whitewater
Tri-County..K9LJM....Horace Hilker...Milton
19/79.....WB9WFA...Scott.....291-0409

WA9 Just Mouthing Off

WELCOME ABOARD I would like to welcome into our fold the 104 members of the Lakeshore Repeater Association. The 147.87/27 group joins our family with this issue. Fern Fisher, W9LCJ, will be your reporter. Information concerning the Lakeshore group or local color articles can be submitted to her. Any technical items should be sent direct to our technical editor, Steve Reyer, WA9VNJ.

PUBLICATION CONTEST WRAP-UP The final comments have been issued concerning the 1976 ARNS club paper contest. Two of the points highlighted were (1) Favorable comments by Judges: Ours were as follows—Excellent typography and excellent technical material. Attractive format. Deserving of praise. (2) Suggestions for improvement: Try two column format to add to readability. (Two judges offered no suggestions here; only such case!) My thanks to all who made this possible.

RTTY CLUB FORMING For all you teletype enthusiasts interested in getting together with those of similar likes, a Milwaukee based club with those same interests in mind is now forming. For additional information, contact Gordon Weiler, W9ZQK, at 464-9089 (home) or 476-9560 (office).

VIGILATES ARISE It seems as if our two meter frequencies are being invaded by unlicensed individuals. Our 146.52 MHz appears to be one of the most popular for these illegal entities. All too often they manage to find their way to one of our fine repeaters making their presence known to a greater number of Amateurs. They appear to grow bolder by the day, challenging anyone to try and stop them. The solution to our dilemma lies elsewhere than with the F.C.C. Their ability to move swiftly in cases like this are almost non-existent. Amateurs have been traditionally a self-policing group. With the close proximity of these agents to our community, a real problem is growing. Contempt breeds contempt. Once started and allowed to run rampage and unchecked, our favorite channel will mirror its counterpart on the eleven meter spectrum.

Now to what I have been driving at. A group of involved Hams—Vigilantes—to seek out in a systematic manner, those causing or making unauthorized transmissions. Once apprehended, they can be dealt with in a prescribed and legal way. The methods would be determined by the group.

Needed first, is an individual to lead this posse...then volunteers to man certain points advantageous for cross pinpointing and mobiles to track the station of the moment.

Leader, stand up and be recognized.

73's Larry McCalvy, WA9JMO

LAKESHORE REPEATER ASSOCIATION

Hello to the readers of HAMATEUR from the members of the Lakeshore Repeater Association.
Since we have recently joined the HAMATEUR group, we believe introduction is in order. The Lakeshore Repeater Association is approximately 1½ years old. Our joint membership is composed of 104 men and women of all age groups and occupational fields. The system is financed jointly by Racine and Kenosha County members and is known as the LAKESHORE REPEATER.

EQUIPMENT: Spectrum SCR-1000 Repeater, Duplexer and Sinclair Antenna, mounted on 100' tower
LOCATION: Red Cross Building, 4521 Taylor Ave., Racine, Wisconsin
FREQUENCY: Input - 147.87 MHz Output - 147.27 MHz
IDENTIFIER: WR9AIY
TRUSTEE: Stanley D. Fisher, W9EQ

After suffering the usual growing pains experienced by all new enterprises, we now have a good working system. However, an all out effort is being made to improve the system by attempting to accomplish all of the goals stipulated by the association at its inception.
With this introduction, we have attempted to tell you who we are, and where we are. However, our main intent is to let you know that there is a good working system, available to all that may need it, in the South Eastern corner of our state.
The last meeting of the Lakeshore Repeater Association was held on October 25, 1977, at which time the election of 1978 officers was held. The following officers were re-elected to office: President: Joel Eschmann, K9MLD; Vice President: Herb Ladwig, W9PHJ; Treasurer: Mike Kehoe, WB9PZI; Secretary: Fern Fisher, W9LCJ.
The addition of Autopatch to the system was discussed and voted on at this meeting. Membership voted against this project at this time.
The president appointed the following technical committee to investigate the cost and feasibility of using satellite receivers to improve the system: Joel Eschmann, K9MLD; Dick Kehl, WA9HOH; Gay Stewart, W9HI; Rees Roberts, K9UUT; C. Corkins, WA9YTH. The committee will make its report at the next quarterly meeting.
The next meeting of the Lakeshore Repeater Association is January 31, 1978, at the Racine Red Cross Building, 4521 Taylor Ave., Racine, Wisconsin 73 Fern, W9LCJ

THE WISCONSIN CHAPTER
QUARTER CENTURY WIRELESS ASSOCIATION, INC.

It is a pleasure to welcome into our group three new members—Fred W. Becker, W9KKM, 132B Valley Drive, Wisconsin Dells, WI 53965; Howard Schultz, W9MFB, 3914 W. Hampton Ave., Milwaukee, WI 53209; and William E. Thompson, K9JGT, 2523 E. Armour Ave., Milwaukee, WI 53207. All three had their baptism at Gresham.
We were sorry to hear that Ralph Billings, W9AFO, was in the hospital at Rhinelander, but we are happy that he is back home now.
Al Krones, K9AA, reports that Ralph Klein, W9DKH, of Manitowoc is ill. We all hope that he will be returned to good health.
Gordon Fedder, W9YFW, our chairman who was to be net control on November 6 was ill and old Reliable Ray, W9NJH, filled in for him. Ray was awarded an ARRL Public Service Certificate for disaster message handling during July.
Since we are fast approaching that time of the year, let me wish to all of you and yours, "BEST OF SEASON'S GREETINGS". Travix, W9VQD

146.07 IN — MILWAUKEE COUNTY AMATEUR RADIO EMERGENCY SERVICE — 146.67 OUT

MEETING: Tuesday, December 6, 1977, at 7:30 P.M. at the Red Cross Building, 26th and Wisconsin Avenue. All hams whether ARES members or not are invited to attend. Asst. EC meeting at 7:00 P.M.
WEEKLY NET: At 9:00 P.M. each Monday night on 07/67.
The following items will be discussed at the December meeting:
(1) OPERATION SANTA: We hope to duplicate last year's very successful Operation Santa and your assistance is earnestly requested. We will set up a "Santa Net" on Christmas Eve during which operators stationed at local hospitals will visit the bedside of children too sick to go home for Christmas and give them a chance to talk to Santa on the radio as he flies towards Milwaukee from the North Pole. The morale boost is something to behold—ask anyone who participated last year or the year before. As many as twenty or more operators will be needed, so plan to give a little of your time during the afternoon of Christmas Eve to help make a sick kid's Christmas merry.
(2) TRAINING PROGRAM: Members of the ARES and other interested hams will be offered an opportunity to participate in a Civil Defense training program to be given by the City of Milwaukee Office of Emergency Government. Dan Gracz, Coordinator of the Milwaukee Emergency Government discussed the training program at some length at the November meeting. Details as to time and place will be announced at the December meeting. Tentatively, we are considering moving the monthly meeting time up to 7:00 P.M. and beginning the training session at 8:00 P.M. directly after the business meeting.
(3) MASS CASUALTY DRILLS: By the time you read this, the ARES will have participated in two mass casualty drills (St. Luke's Hospital on 10/21 and Trinity Hospital on 11/15) and a third at St. Michael's Hospital on 11/29 will be imminent. The lessons learned at these exercises will be reviewed and any details on future operations announced. All members should make an effort to participate...they present a valuable opportunity for training in a fairly realistic setting and to relieve the burden on those dedicated hams who always seem to be able to find time for these activities. There are about nineteen hospitals in the area, so plenty of opportunities are available. John, WB9SMM

TRI-COUNTY AMATEUR RADIO CLUB

Our December meeting will be held on the 11th of the month in Fort Atkinson. Meeting time for the winter months will again be held in the afternoon rather than evening due to the possibility of adverse weather. The executive board met at the QTH of WB9EMR to discuss some important business. We are starting to think about the annual Christmas party. December is really sneaking up on us.
Larry, K9PSV, was inadvertantly omitted from the new membership list in last month's Hamateur. Sorry about that OM.
We are continuing to have a good group of people turn out for our code and theory classes. Hope that you all had a Happy Thanksgiving. 73's K9LJM

146.31 IN **MILWAUKEE REPEATER CLUB** **146.91 OUT**

INTERFERENCE POLICY Occasionally, an unlicensed operator stumbles on the repeater. Rather than trying to scare him off by threats of FCC action (they won't do anything anyway), members of the QRM committee will usually try to engage the offender in a conversation. During such an exchange, calls are not used to avoid scaring off the intruder. The purposes of these tactics are: (1) Obtain information about the location of the station. (2) Obtain information about the identity of the operator. (3) Allow other members to use direction finding methods to locate the offender.
If you hear this CB type exchange taking place, don't break in for any purpose other than an emergency. Rather, listen to the illegal station on the 146.31 MHz input frequency and report any direction clues such as bearing and signal strength by telephone to one of the control operators. Control operators are: WA9RYO, WA9RWO, WA9JOB, WB9PCQ and W9VAT. This technique has been used successfully by the Chicago FM Club on their 16/76 system.

RACINE MEGACYCLE CLUB

The next meeting of the Racine Megacycle Club will be December 12 at the American Red Cross Building on Taylor Ave., at 7:30 P.M. All hams are welcome. Dues are only $3.00 per year for those wishing to join our little group.
Racine's new autopatch repeater is looking for members. Anyone interested may contact Joel, K9MLD. The frequency pair is 147.675 in, 147.075 MHz out. It has already been put to good use by WB9RGO who reported a hit and run. WB9BDX is QRL working on new Heathkit projects. Vasco, CT1OY is now on the air from Lisbon and looking for all his old friends from this area. He is going to school to become a Portuguese Merchant Marine Officer. Congratulations to Dave, WB9USI, who has 18 students in his Novice class on Monday nights. It looks like Sunday, January 15, will be the date for the dinner dance at Kenosha. Anyone interested in going to SAROC's hamfest January 6, 7 and 8 may contact W9HI for more details. It is held out at Lost Wages, Nev., and special air and motel rates can be had.
We now have a first class communications room at the Red Cross Building: a two-meter rig, a low band rig, an AC Generator, a Motorola base station, and some red carpeting on the floor. All we need is a mirror on the ceiling.
N9HI is on 160 Meters. The Racine Megacycle Club wishes each and everyone a very Merry Christmas and good DXing in the New Year. 73 Stu, W9HI

146.22 IN **SOUTH EASTERN WISCONSIN FM AMATEUR REPEATER SOCIETY** **146.82 OUT**

The 22/82 meeting was uneventful. Minutes read pretty much as last meeting in August. Committee progress was the same as usual. The new receive antenna is up and operational with better coverage to the south from Delafield. We are looking for a reporter to take some of the burden off the secretary. Any volunteers?
One last item, the next meeting of the club will be December 1 at 7:30 P.M. We'll not have another meeting from then on until January due to the holidays.
I'd like to appologize to the membership for not getting the formal welcomes out for their acceptance into the club. My XYL came home from the hospital three weeks ago and I have been caught in the maze of paperwork settling all her bills from 81 days of hospitalization. I will get to it before Thanksgiving.
73's for now Lee, WA9AOE

146.25 IN **MILWAUKEE COUNTY REPEATER SOCIETY** **146.85 OUT**

JANUARY MEETING PLANNED The next meeting of WR9ABS is scheduled for Tuesday, January 17, 1978. All are invited to attend. Members note that due to the holiday season, the society has no meeting during the month of December. Scheduled for the January meeting will be the nomination of club officers for the coming year. Elections will be held at the February meeting. All current WR9ABS members are urged to attend both meetings to have their say in the operation of the club. It is planned that a mailing will be sent to each member prior to the meeting to advise of exact time and location.
YEARLY MEMBERSHIPS ABOUT TO EXPIRE All members please note that dues for the coming year are payable by January 31, 1978, and are currently $12.00. Dues and any other correspondence should be addressed to: MI.CO.R.S., P.O. Box 18443, Milwaukee, WI 53218. In this way members are assured of the fastest action on their requests. 73's Bill, WB9EFP

M·R·A·C MILWAUKEE RADIO AMATEURS' CLUB M·R·A·C

No regular meeting in December. Our annual OLD TIMER'S NIGHT - Wednesday, December 14, 7:30 to 11:00 P.M. at PABST BLUE RIBBON HALL, 901 West Juneau Avenue - free guarded parking in company #1 lot diagonally opposite. MRAC members and spouses enjoy plenty of Pabst Beer, and there is orange drink for non-imbibers. Our own George Ruger, W9DVD, will conduct a short program which will include remarks by Honorary Member Charles S. Polacheck about the MRAC file that has been organized in the Local History Department in the Milwaukee Public Library. Lots of time for rag-chewing. If you are not an MRAC member, but are an 'old-timer', you are cordially invited to join us for an evening of memories (and beer). And bring the spouse along. It's free! NO CHARGE!

IMPORTANT NOTICE: In 1978 the MRAC will meet the THIRD THURSDAY of each month at the Wauwatosa Savings and Loan, 7500 W. State St. Program announcements for the January 19, 1978, and the February 16 meetings will be included next month. 73 Al, W9MDG

146.19 IN CMØS 146.79 OUT

On November 4, the CMØS System 19/79 was officially christened at its downtown site. A banner proclaiming "W9HHX/RPT" was flying from the antenna mast (at 200 feet) and the traditional bottle of champagne was broken over the antenna mount.

In the very near future, the repeater mainframe will be replaced with a better receiver and a higher power transmitter. The present 3 watts output leaves much to be desired. Dual Frequency PL is already being installed to conform with the WAR PL Plan.

Several members of CMØS attended the recent "open house" at the City of Milwaukee Emergency Operations Center and were very impressed with what we saw and heard. Dan Gracz, Coordinator, Milwaukee City Emergency Government, was very concerned with emergency procedures and Amateur Radio Communications. They offer several courses (free) in various emergency related subjects from Self Help First Aid to Radiological Monitoring and Control. These are not "doom and gloom" courses either. Check into it...why wait until it is too late. Unfortunately that is too often the case. Well, when something happens, we'll be ready...But will you...?

73 Scott M. Freeberg, WB9WFA

6-MIC SIX METER INTEREST CLUB 6-MIC

Next meeting: December 14, 7:00 P.M., Forest Home Library

Agenda: Club business and tech talk, "Antenna or Pidgeon Roost?"

Have you seen QST for November? How about that cover story. Look familiar? New horizons...VHF frontiers... same thing you've been reading in this column for months. For those of you who didn't read the article, it's a band by band sketch of the VHF/UHF spectrum. W1XZ does a great job of hitting the highlights. Yet, the story does not end there. Each phase of our fascinating hobby has it's own rewards, for the VHFer there's something special. Patience and perseverance are as much a part of his world as striplines and Faraday rotation. Where else can you learn so much about your own capabilities as you practice the art of radio? Also, the world VHF/UHF is a builder's delight. If you can't find a part you need, make it! (Sometimes better than its commercial counterpart) So, come on you guys, lay aside your HTs for awhile and find out what VHF is really all about.

Also in November QST are the results of the June VHF contest. As I predicted, the record books were rewritten. N6NB, national top scorer with 69K broke his 1976 record of 60K. K9HDE took Central Division with 33.5K to break K9HMB's 1972 record of 18.8K. Yours truly posted 16.5K, top for Wisconsin. Single op! Single band! New record?

For the month of October, 10M and 15M was "where it's at". I hear 2M was not so bad either. Six meter operators did not fare quite so well, but propagation was somewhat better than average for this time of year. Thanks to about 4 hours of E-skip and 5 hours of aurora, 22 states were logged at this station during the last half of the month. To be sure, 6M is so thinly populated, many more hours of openings to many more places slip by unnoticed. 73, Bob, WB9OPD

147.93 IN SOUTH EASTERN WISCONSIN AMATEUR RADIO SOCIETY 147.33 OUT

The Southeastern Wisconsin Amateur Radio Society will be holding its next meeting Wednesday, December 7, at the Waukesha City Hall. Starting time around 7:30 P.M. sharp, Paul willing. A business meeting and election of officers for the new year will be on the evening's agenda. All members are encouraged to attend this important meeting.

Please make note that the post office has changed our zip code. It is now 53187. This zip code has been assigned to all the post office boxes at the Waukesha Post Office in hopes to speed up service. Since it is nearing the season of giving, not Christmas, but dues time, we will remind you of our mailing address. It is SEWARS, PO Box 605, Waukesha, Wisconsin 53187.

Just some food for thought. What about setting up a public relations booth at the next swapfest in January. A little PR never hurt. You will hear more about it at the meeting. Brian, WB9RZL

QSL BUREAU - INFORMATION

Having been requested by Larry, WA9JMO, to do an article on the W9 QSL Bureau, I thought I'd answer some of the more frequently asked questions received here at Box 519.

Q. How do I go about joining the Bureau?

A. You don't 'join' the Bureau. To receive DX QSL cards from the Bureau, simply send several self addressed stamped envelopes to us at Box 519, Elmhurst, IL 60126. You do not need to be a member of ARRL. Make sure your call is in the upper left hand corner of each envelope. Then just sit back and wait; but be patient! Some DX stations take from several months to over a year to get a QSL card to us.

Q. What size envelopes do you want and how much postage should I put on?

A. We will somehow get your QSL's into whatever size envelope you send us. However, our favorite size is 5X7 inch manila envelopes with a clasp. If you have to ask how much postage to put on each envelope, you're probably best off with only one ounce of postage. This especially applies to new hams and those who only get on the air once every blue moon. With an average sized envelope this will insure a mailing when we have about five or so QSL's. Be advised, however, that this depends on the size of the envelope! Some hams with a severe case of hindsightedness have already sent us large envelopes with one ounce of postage on them. The envelope alone weighed over an ounce!

Q. I work very little DX, but I'm still working toward DXCC. How can I get an envelope mailed to me before I have accumulated one ounce of cards?

A. By writing the word MONTHLY in the upper left hand corner under your call. That way we will send your envelope off when only one or two cards come in in a particular month. By the way, this is the only other service we provide. Please don't ask us to send your envelope every third month or when you have three cards or when your UH8 card comes in. If you could see how much work we have here, you would understand why these requests are impossible to fill.

Q. I just received my two-letter call. Can I give you envelopes with both my new and old call on them?

A. NO. Only one call per envelope, please. The way we operate is I pick up the cards daily at Box 519 and bring them home to sort by the first letter after the 9. Once each month the cards are delivered to a dispatcher who is responsible for one or two letters. Ergo, if your call was W9MEM and it's now K9DX, your envelopes for your old and new calls would go to two different dispatchers.

Q. Filling out envelopes is a pain in the VFO! Why can't I send you money and you supply the envelopes and fill them out there?

A. Because we can't write either! Seriously, this is much too time consuming for us to handle. Money is accepted for postage only...not as a substitute for envelopes. 73's Gerry, WB9EBO

In My Opinion

In recent months, there has been a great deal of discussion among amateurs, manufacturers of amateur gear, the FCC, publishers of radio magazines and amateur radio dealers on the subject of how to keep amateur radio equipment out of the hands of unlicensed people.

The FCC proposed type acceptance for amateur equipment. The logic behind the proposal was that equipment would have to be type accepted to be sold and that to be type accepted, it would have to be constructed so that it (the equipment) could not easily be modified to operate on non-amateur frequencies. Type acceptance has some merit but it creates three problems, 1) it would probably cause radio prices to rise, 2) it might hamper kit builders and homebrewers, 3) it could prevent manufacturers from making minor changes or improvements in their products because each and every change would have to be type accepted.

Another proposal called for proof of licensing in order to buy transmitting equipment. But, it has three major shortcomings, 1) who would be responsible for enforcement? 2) there are enough "money hungry" dealers around that some of them would still want to make a buck by selling to anyone, 3) some hams might want to buy equipment and resell it to unlicensed people.

QST proposed a code of ethics for advertisers. Part of the code called for advertisers to refuse to sell transmitters to unlicensed people. But this puts the publisher in a bad spot. Is a publisher legally entitled to require advertisers to follow this code of ethics? And what publisher is going to turn advertising dollars away if a dealer won't go along with the code?

The actual problem is that too darn many CBers are using amateur gear on CB and on the low end of 10 meters. In order to keep the "good buddies" from getting amateur gear, the licensed amateurs may suffer. The way I see it, the problem was created by the dealers who sold transmitting equipment to the CBers.

Hams can't count on the FCC for help. After all, who needs type acceptance? Proof of licensing at the point of purchase won't work because some dealers might not cooperate. Publishers can be put in a money squeeze if they turned advertisers away.

But there is one thing the individual ham can do, and it boils down to this: Don't buy from dealers who sell ham gear to CBers. If hams stop buying from unscrupulous dealers, the dealers will feel it; and when they know why their sales are dropping, they might revise their sales policies and help hams keep the ham gear in the ham bands!

John W. Frank, WB9TQG
3414 Dawes Street, Madison, WI 53714

COMPACT PORTABLE ANTENNA

You're out in the "wilds" of Southeastern Wisconsin—just a 30 or 40 minute drive from town, and you encounter a nasty looking auto accident. Since there are no phones nearby, you pull out your 2-meter handie talkie with the intent of raising someone on the nearest repeater, to have him notify the authorities. First you try your favorite frequency...ker-chunk...and no repeater there! Oh yeah, I'm way out of town. I should have realized. So try the "super-coverage" repeater...nothing...IMPOSSIBLE! You can hit it from anywhere—except maybe in a hollow, or behind a hill or, actually, quite a few places when you're far away with only an HT. Maybe if I stand on top of the car and jump real high...

Has this ever happened to you? Maybe not...not yet. What would you do if it did happen? Any handie talkie, or for that matter, any mobile installation will, at some time, be just out of range of a repeater you need to hit. If it is not practical to relocate yourself and you're using every watt you have and still no-go, there's only one solution—and it's a simple one—raise the antenna. Or, more precisely, have an emergency antenna which can be conveniently placed at a greater height than your HT or mobile antenna.

Here's a design for a simple portable antenna for use when the usual radio system just won't "cut it". It can be built from the junk box in less than a half hour, and in an emergency, could literally mean the difference between life and death. The antenna itself is made from a piece of 300 ohm TV twin-lead and has the configuration of a J-pole. It has a low angle of radiation (power is kept at the horizon, where the repeaters are, instead of up into space), and can be fed with standard 50 ohm coax (RG-58 should be fine). The whole thing can be rolled up into a tight coil and stashed in the trunk of the family car.

Here's how to make one. First decide the approximate frequencies which you want the antenna to be used for. This should be a transmit frequency. (Any time you work with an antenna and are trying to match it to a certain frequency, it should be your transmit frequency which you are concerned with. High SWR on transmit causes problems. A slight mismatch on receive is usually unnoticeable.) Refer to chart for dimensions. Using a knife or heavy shears, cut down the middle of the 300 ohm twin-lead to the matching stub and remove the unwanted piece of material. Connect a length of RG-58 coax, put a connector (of the type for your radio) on the other end of the coax, and you're ready to operate. To make things a bit more reliable, tape the connections between the antenna and the coax. This will help keep water out of the coax, and will provide some strain-relief at the solder points.

Now to use it. It would be best to attach a piece of nylon cord to the antenna with a weight on the other end. Toss this over a convenient tree limb and pull it up to that height and you're on the air.

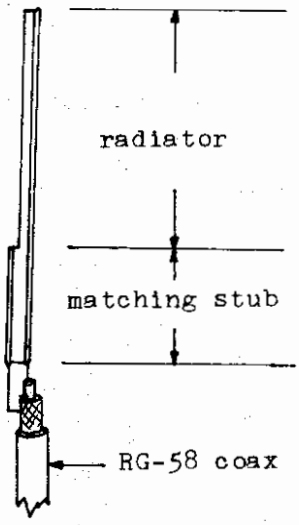
73, Steve, WA9VNJ

(Thanks to John, WB9SMM, for alerting me to the article in '73 magazine for August, 1977, when this antenna appeared. The article is by W9VZR.)

Original 300 ohm twin lead

J-pole antenna

Frequency (MHz)	144	145	146	147	148
Radiator (inches)	38.4	38.2	37.95	37.69	37.43
Stub (inches)	20.0	19.8	19.73	19.59	19.46



WISCONSIN REPEATER NEWS

BY JOHN LA BLONDE, W9FZC

It has been two months since I brought you up-to-date on the latest repeater activity on two meters in the state. Since I am the trustee of the 146.34/94 system in Madison, I'll start with that machine. By the time this gets into print, we will have a Micor solid-state repeater going in place of the older model tube type unit we have been using. We still have some more antenna work to be done and then the machine should give good service to Dane and the surrounding counties. Hopefully by the first of the year, 147.96/36 will be operating from the 400 foot level of the Baraboo tower location. The Sparta repeater is now on the air on 147.09/69 but at last report, have not yet located on the high tower they plan to use.

Wisconsin Rapids is now on the air with a machine on 146.19/79 and Stevens Point is also doing well on 146.07/67 from the State University location. Rumors are flying around that plans are afoot for a repeater in the Rice Lake area and in the Minong area between Rice Lake and Superior. That will certainly fill a badly needed gap on two meters between Rice Lake and Superior. Bessemer, Michigan, is now on the air on 146.16/76 and there is another good repeater operating in Herman, Michigan, on 146.07/67, which should help those travellers in those areas.

The Rib Mountain repeater on 146.22/82 has become real potent since they raised their antenna to the 200 foot level of the TV tower on Rib. The same is true of the Appleton machine on 146.16/76 as they also raised their antenna. Sooo, have a happy trip through out the state with two meter rigs riding side-saddle with you.

73 from John, W9FZC CWRA MRC

Classified Ads

Advertising Rates effective for January, 1978, publication: Non-commercial ads are $.10/word including abbreviations and addresses. Commercial type ads appearing in this column are $.25 per word. Complete phone numbers are considered as one (1) word. Ads will be published for two (2) consecutive issues. Unless otherwise noted, phone listings are considered as local Milwaukee numbers. Full remittance must accompany ad copy. To insure the maximum success of "FOR SALE" ads, all items must include the asking price. Closing date for ads is the 2nd of the publication month. Direst ad copy and remittance to: Don Habeck, W9AMM, 5973 Sugarbush Lane, Greendale, Wis. 53129

FOR SALE: Regency HR-2A that has been interfaced with a factory wired GLB 400C synthesizer. The 2A is also equiped with 5 sets of crystals: 94 & 52 simplex and 31/91 25/85 & 16/76 repeater pairs & a 70 db filter. The above is set in and on the side of a Port-a-pac carrying case. Included is a motor cycle battery and charger. Asking $325. Contact Larry McCalvy, WA9JMO 464-7449

FOR SALE: Hy-Gain Vertical 18AVT/WB-A 10-80 mtr antenna, cw or voice, 2-kw pep, w/manual, excellent condx; $50. Contact WB9TKA, Jerry Komassa, 282-0080

FOR SALE: MFA-22 Synthesizer, R/P Electronics, 2-freq model, currently set up for Motorola Motran (channel elements incl), but can be easily converted to your radio. Orig cost was $340, sell for $100 or ?. Contact Stu, WB9SWM 352-9254

FOR SALE: Regency HR-2 2M xcvr w/xtals, 4-Amp. pwr supply & mic; $140. Wanted: Tri-band or duo band beam for 20, 15, 10. Contact John, WD9DEN 377-3388

FOR SALE: 60 ft galvanized tower. Must be taken down. Can be seen at 5776 N. Bel Aire Dr. Contact Doug Pavek, W9FDX 351-5267

FOR SALE: Halicrafters HT-32A xmtr; $125. Waters Compreamp, preamplifier/limiter Model 359; $20. 2 filament xfmrs, 2.5v @ 5 amps; $4 ea. Plate xfmrs 515-0-515 @ 235 ma; $8. 1660 w/ct @195 ma; $15. Contact Herb Berg, W9CAS, 445-6833

TRADE: Bunch of gear (all in good shape) to trade for old revolvers & pistols: (1) Twin 11-ele Cushcraft 2M beams mounted on mast wired & ready to go (2) Drake ML-2, 2M xceiver recently aligned at AES (3) Kris scanner w/xtals (4) Regency AR-2, 2M amp (5) Regulated 4 amp pow sup (6) Heath HM-2102 Watt meter (not working) Contact Dick Robbins, WB9AIS, 241-9616

WANTED: Tower (50-60 ft) and 3-band beam. Contact Dieter, DJ7BU/W9 Wauwatosa 476-2908

FOR SALE: Bogen CHS-20 transistorized p.a. amp, 20 watts, 40 watts peak, hi/lo mike input, 120 vac/12 vdc; $40. Collins mechanical filter F455Y3.1 452, 455 Khz 3.1 kc @ 6 db points, part of 2.25 Mhz ssb subchassis from sideband package: $25. GE progress line mobile unit 25-54 Mhz w/access; $35. Contact Lynn Tamblyn, K9KR, 28812 E. River Bay Dr. Waterford, WI 53185 (414) 895-6574

FOR SALE: Eimac 294, same as 4-1000 PR, directly replaces 3-1000 or 4-1000. New, unused, not boxed, only 6 left; $75 ea. Contact Bob, WB9OPD 447-1307

FOR SALE: National 200 w/pwr supply, spkr, 100 kc cal.; $245. Realistic general coverage recvr, 150 kc to 30 mhz, 5 bands; $100. Contact Al Jordan, WD9DIT, 123 S. Center St., Jefferson, 53549 414-674-4464

FOR SALE: Standard H.T., 4 pr of xtals, ext. mic, deluxe case, extra ant., desk type charger, mobile adapter; mint condx; $225. Contact Rudy, WD9AFV 463-9856

FOR SALE: Kenwood TS-820 xcvr w/cw filter & remote VFO; $925. Contact Barry, WB9SFK, 377-8290 days, 375-0590 after 5 P.M.

FOR SALE: Touch tone pad in aluminum enclosure; $12. Motorola "turkey roaster" smtr & rcvr, 94 simplex, rcvr has all new tubes in front end, schematics; $20. Contact Richard Schoessow, WB9HSW, 519 N. 106 St., Wauwatosa, WI 53226 453-1294

SWAP: Mini Products Hybrid Quad, 20-15-10-6, up & operating for low band ssb exciter or what have you? Also have several low & high voltage pwr supplies that could be included with swap. Contact Stan, WB9RQR, 272-6966

WANTED: HT-220. Contact Marlin, WD9AXH at 354-1650

FOR SALE: Wilson 1405SM H.T., speaker mic, case, nicads, charger xtals, duck, whip & modifications; $325. Contact Larry, WB9TNZ, 964-3582

FOR SALE: Galaxy 5 MK 2 w/pwr supply, 80-10 mtr xcvr, gud condx; $230. RV-1 remote vfo, matches Galaxy 5; $40. Deluxe console, swr bridge, fone patch, 24-hr clock, speaker for Galaxy 5; $50. Complete package; $300. Yaesu FT101B w/fan, mic, ac/dc cords, late '75 model; $550. Contact Gary Sharbuno, WA9UJK, 5830 N. 38 St., Milwaukee 53209 466-5379

FOR SALE: Dentron antennas: 4V, 40-10 vertical, used once; $50... 160-40V, brand new, vertical; $50. One Eimac 3-500Z, new; $35. Contact William Neumiller, WD9OCU, 1743 New St. Union Grove, WI 53182

WANTED: Edison Jr. High Radio Club is soliciting donations of any ham equipment or related supplies. If you have anything you think the kids could use, call Ray, WB9ZIQ, 384-4040 (after 5 P.M.) Donations are tax deductable.

FOR SALE: Heath DX-35 w/manual, as is; $12. Knight VFO w/manual; $10. Hustler foldover mast for bumper mtg; $10. Contact Tom, W9SRA, 425-6186

WANTED: Hal ST-6 Demodulator and 2-freq. kit for Motorola HT-200. Contact Warren Jr., WB9OTM, 963-0260

FOR SALE: QST-Aug '68 thru Apr '74; Ham Radio-July '69 thru Oct '75; 73-Mar '69 thru Aug '72; CQ-Apr '68 thru Dec '75. 25¢ per copy (you pick up or pay shipping) Contact Glenn Eisenbrandt, WA9VYL, 711 East St., Fort Atkinson, WI 53538

FOR SALE: Drake TR-4 w/noise blanker, mike, MC-4 wattmeter console w/speaker, DC-4 mobile pwr supply & AC supply. Excellent condx. Contact K9YPW, Rte 2, Seymour, WI 54165 (414) 833-2068

FOR SALE: Heath HD-10 Keyer; $25. Contact Paul Hellenberg, K9LWT, Racine 554-9170

FOR SALE: Hardware 95% complete vhf 2-mtr duplexer from ARRL repeater handbook. Contact Joel Eschmann, K9MLD, 132 Ohio St., Racine, WI 53405 (414) 632-1221

the HAMATEUR

EDITOR: Larry McCalvy WA9JMO
7453 W. Thurston Circle
Milwaukee, Wisconsin 53218

NOVEMBER 1977

BULK RATE
U.S. POSTAGE
P A I D
MILWAUKEE, WISC.
PERMIT NO. 4540

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Meeting Notices

22/82	Dec.	1..Thursday
07/67	Dec.	6..Tuesday
93/33	Dec.	7..Wednesday
Tri-County	Dec.	11..Sunday
Racine	Dec.	12..Monday
MRAC	Dec.	14..Wednesday
6-MIC	Dec.	14..Wednesday
Ozaukee	Dec.	14..Wednesday
CQ3TUE	Dec.	20..Tuesday
25/85	Jan.	17..Tuesday
31/91	Jan.	25..Wednesday
Lakeshore	Jan.	31..Tuesday
QCWA	June	3..Saturday

Upcoming Events

Dec. 14...MRAC's Old Timers Nite
Pabst Hall, Milwaukee
Dec. 22...Amateur exams given
in Milwaukee
Jan. 21...West Allis Club's
Swapfest—Waukesha

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